



## PCT

- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

FIG. 1 is a block diagram illustrating a secure email system architecture. The diagram shows the flow of data between a Mail Transport Agent (MTA) and a Mail User Agent (MUA) client, and the internal structure of a message.

The top section shows the interaction between the **REGISTERING MAIL TRANSPORT AGENT (POSTAL SERVICE)** (14) and the **RECIPIENT'S MAIL TRANSPORT AGENT (POSTAL SERVICE)** (16). They exchange **MESSAGE TRIGGER(S)** and **EXISTING DIALOG (TELEPHONE CONNECTION)**. The **REGISTERING MAIL TRANSPORT AGENT (POSTAL SERVICE)** (14) also sends **NEW DSN REPORT(S) & MAIL NOTIFICATIONS** to the **RECIPIENT'S MAIL TRANSPORT AGENT (POSTAL SERVICE)** (16).

The middle section shows the interaction between the **SENDER'S MAIL USER AGENT (E-MAIL CLIENT)** (12) and the **REGISTERING MAIL TRANSPORT AGENT (POSTAL SERVICE)** (14). The client sends a **MESSAGE SIGNED** (10) to the MTA. The client also sends a **MESSAGE** (15) to the **RECIPIENT'S MAIL TRANSPORT AGENT (POSTAL SERVICE)** (16).

The bottom section shows the internal structure of a **MESSAGE** (15). It consists of a **MESSAGE BODY**, **MESSAGE DIGEST 0**, **ATTACHMENT 1**, **MESSAGE DIGEST 1**, ..., **ATTACHMENT N**, **MESSAGE DIGEST N**, **(ESMTP DIALOGS)**, and **DSN REPORT(S)**. The message is also associated with a **REGISTERED OVERALL MESSAGE DIGEST (ORIGINAL SIGNATURE)**.

**WO 02/011025 A3**

## INTERNATIONAL SEARCH REPORT

Internat Application No

PCT/US 01/23565

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G06F17/60 H04L12/58 H04L29/06

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04L G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	WO 01 10090 A (TOMKOW TERRANCE A) 8 February 2001 (2001-02-08) the whole document	1-183
X	<p>-----</p> <p>CERVENINI G ET AL: "A multiprovider, universal, e-mail service for the secure exchange of legally-binding multimedia documents"</p> <p>EUROCOMM 2000. INFORMATION SYSTEMS FOR ENHANCED PUBLIC SAFETY AND SECURITY. IEEE/AFCEA, 17 May 2000 (2000-05-17), XP002178670</p> <p>Retrieved from the Internet: &lt;URL:http://ieeexplore.ieee.org&gt; 'retrieved on 2001-09-27!'</p> <p>the whole document</p> <p>-----</p> <p style="text-align: center;">-/--</p>	1-183

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

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- \*G\* document member of the same patent family

Date of the actual completion of the international search

11 June 2003

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Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Buron, E

## INTERNATIONAL SEARCH REPORT

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 17042 A (BARKAN MORDHAI) 23 April 1998 (1998-04-23) abstract; figures page 22, line 1 -page 27, line 4 ----	1-183
X	WO 96 38987 A (SLOO MARSHALL A) 5 December 1996 (1996-12-05) abstract; figures page 1, line 6 - line 23 page 3, line 4 - line 8 page 6, line 16 -page 7, line 4 page 9, line 7 -page 13, line 23 ----	1-183
X	WO 99 08424 A (WOLF HANS HERMANN ;SIEMENS AG (DE)) 18 February 1999 (1999-02-18) abstract; figures page 2, line 22 -page 4, line 8 ----	1-183
X	US 5 553 145 A (MICALI SILVIA) 3 September 1996 (1996-09-03) abstract; figure 1 column 6, line 46 -column 9, line 42 ----	1-183
A	"METHOD FOR AUTOMATED COMMUNICATION TO THIRD PARTIES UPON COMPOSITE ACKNOWLEDGEMENT" IBM TECHNICAL DISCLOSURE BULLETIN, IBM CORP. NEW YORK, US, vol. 37, no. 2B, 1 February 1994 (1994-02-01), pages 345-346, XP000433872 ISSN: 0018-8689 the whole document ----	15,23,24
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Information on patent family members

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PCT/US 01/23565

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